

CLAIMS

1. A time certification server, comprising:

a receiving section that receives from a terminal apparatus an issue
5 request for a time certification code and terminal information relating to the
terminal apparatus;

a temporal change information input section that inputs temporal
change information;

a first code generating section that generates a first code by
10 encoding the temporal change information inputted by the temporal change
information input section, and outputs the first code;

a second code generating section that generates a second code
based on the terminal information received at the receiving section and the
first code outputted from the first code generating section, and outputs the
15 second code;

a transmitting section that transmits to the terminal apparatus the
second code outputted from the second code generating section as a time
certification code;

a time certification code memory section that stores the time
20 certification code transmitted from the transmitting section in correlation
with time; and

a certification processing section that receives the time certification
code from the terminal apparatus, searches the time certification code
memory section by using the time certification code received, thereby
25 obtaining time correlating with the time certification code, and outputs

certification information based on the time obtained to the terminal apparatus.

2. The time certification server of claim 1, wherein the temporal
5 change information input section inputs the temporal change information including weather information, and

wherein the first code generating section hashes the temporal change information including the weather information, thereby thus generating the first code.

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3. The time certification server of claim 1, wherein the receiving section inputs the terminal information including terminal identification information from the terminal apparatus, and

wherein the second code generating section hashes the terminal
15 information including the terminal identification information and the temporal change information, thereby thus generating the second code.

4. The time certification server of claim 1, wherein the receiving section inputs from the terminal apparatus terminal positioning information
20 that is obtained by measuring a position of the terminal apparatus, and

wherein the second code generating section hashes the terminal information including the terminal positioning information and the temporal change information, thereby thus generating the second code.

25 5. The time certification server of claim 1, wherein the receiving

section receives from the terminal apparatus the terminal information including location-dependent information that is available for the terminal apparatus to acquire at a position where the terminal apparatus is,

wherein the second code generating section hashes the terminal
5 information including the location-dependent information and the temporal change information, thereby thus generating the second code.

6. The time certification server of claim 1, wherein the receiving section receives from the terminal apparatus the terminal information
10 including terminal positioning information, which is obtained by a Global Positioning System (GPS) satellite by measuring a position of the terminal apparatus, and positioning time information, which is acquired from a satellite electronic clock of the GPS satellite; and

the time certification server further comprising:

15 a server electronic clock that is synchronized with the satellite electronic clock of the GPS satellite; and

a certification time recording section that stores in the time certification code memory section the positioning time information included in the terminal information and time information about time measured by
20 the server electronic clock.

7. The time certification server of claim 1, wherein the receiving section inputs from the terminal apparatus the terminal information including a previously issued time certification code,
25 wherein the second code generating section generates the second

code based on the terminal information including the time certification code and the temporal change information, and

wherein the transmitting section transmits to the terminal apparatus the second code outputted from the second code generating section as a
5 new time certification code.

8. The time certification server of claim 7, wherein the time certification code memory section stores the previously issued time certification code and the new time certification code in correlation with
10 each other in a traceable manner, and

wherein the certification processing section, upon receipt of the time certification code from the terminal apparatus, retrieves from the time certification code memory section a time certification code that correlates with the time certification code received, and outputs to the terminal
15 apparatus the certification information that is acquired from the time certification code retrieved.

9. The time certification server of claim 1, further comprising:
a condition checking section that detects whether information
20 acquired from the terminal information meets a predetermined condition, and

a special code instruction section that instructs the second code generating section to add a special code indicating that the information acquired from the terminal information meets the predetermined condition
25 when the condition checking section detects that the information acquired

from the terminal information meets the predetermined condition.

10. The time certification server of claim 1, further comprising:

a condition checking section that detects whether information

5 acquired from the terminal information meets a predetermined condition,
and

an inhibiting section that inhibits the second code generating section
from generating the second code when the condition checking section
detects that the information acquired from the terminal information meets
10 the predetermined condition.

11. The time certification server of claim 1, wherein the temporal

change information input section connectable to a plurality of source
devices, each providing the temporal change information, selects one of the
15 plurality of source devices based on time, thereby thus inputting the
temporal change information.

12. The time certification server of claim 11, wherein the temporal

change information input section selects the one of the plurality of source
20 devices at random, thereby thus inputting the temporal change information.

13. A terminal apparatus, communicating with a time certification server
for time certification, comprising:

a time certification code issue requesting section that transmits to
25 the time certification server an issue request for a time certification code

and terminal information relating to the terminal apparatus, and

a stamping section that receives the time certification code from the time certification server, and prints time that is certified by the time certification code together with the time certification code.

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14. The terminal apparatus of claim 13, further comprising:

a time verification section that receives and transmits to the time certification server the time certification code printed by the stamping section, and requests the time certification, thereby verifying an authenticity of the time printed by the stamping section.

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15. A time certification method, which is performed by a time certification system that includes a terminal apparatus and a time certification server, comprising:

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the terminal apparatus:

transmitting an issue request for a time certification code and terminal information relating to the terminal apparatus to the time certification server;

the time certification server:

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receiving from the terminal apparatus the issue request for the time certification code and the terminal information relating to the terminal;

inputting temporal change information from a source device that provides the temporal change information;

generating a first code by encoding the temporal change information,

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and outputting the first code;

generating a second code based on the terminal information and the first code, and outputting the second code;

transmitting the second code to the terminal apparatus as a time certification code;

5 storing the time certification code in a time certification code memory section in correlation with time;

the terminal apparatus:

transmitting the time certification code to the time certification server and requesting time certification,

10 the time certification server:

receiving the time certification code from the terminal apparatus;

and

searching the time certification code memory section by using the time certification code received, thereby obtaining time correlating with the time certification code, and outputting to the terminal apparatus the certification information based on the time obtained.

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16. The time certification method of claim 15, wherein the terminal apparatus measures a position of the terminal apparatus, and transmits the terminal information including terminal positioning information obtained by measuring the position to the time certification server, and

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wherein the time certification server receives from the terminal apparatus the terminal information including the terminal positioning information, and hashes the terminal information including the terminal positioning information and the temporal change information, thereby thus

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generating the second code.

17. The time certification method of claim 15, wherein the terminal apparatus transmits to the time certification server the terminal information including a previously issued time certification code, and

5 wherein the time certification server inputs from the terminal apparatus the terminal information including the previously issued time certification code, generates the second code based on the terminal information including the time certification code and the temporal change information, and transmits the second code to the terminal apparatus as a new time certification code.

18. The time certification method of claim 17, wherein the time certification code memory section stores the previously issued time certification code and the new time certification code in correlation with each other in a traceable manner, and

15 wherein the time certification server, upon receipt of the time certification code from the terminal apparatus, retrieves from the time certification code memory section a time certification code that correlates with the time certification code received sequentially, and outputs to the terminal apparatus certification information acquired from the time certification code retrieved.

19. The time certification method of claim 15, wherein the temporal change information is provided from a plurality of source devices, and

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wherein the time certification server connectable to the plurality of source devices selects one of the plurality of source devices based on time, thereby thus inputting the temporal change information.

- 5 20. A time certification program or a storage medium that has stored therein the time certification program, causing a computer to execute:
- a receiving process that receives from a terminal apparatus an issue request for a time certification code and terminal information relating to the terminal;
 - 10 a temporal change information input process that inputs temporal change information;
 - a first code generating process that generates a first code by encoding the temporal change information inputted by the temporal change information input process, and outputs the first code;
 - 15 a second code generating process that generates a second code based on the terminal information received by the receiving process and the first code outputted by the first code generating process, and outputs the second code;
 - a transmitting process that transmits the second code outputted by
 - 20 the second code generating process to the terminal apparatus as a time certification code;
 - a time certification code memory process that stores the time certification code transmitted by the transmitting process in correlation with time; and
 - 25 a certification process that receives the time certification code from

the terminal apparatus, retrieves the time certification code stored by the time certification code memory process, acquires time that correlates with the time certification code, and outputs to the terminal apparatus certification information based on the time acquired.